

STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 8397

Petition of Green Mountain Power Corporation for)
approval of its 2014 Integrated Resource Plan)

Order entered: 7/29/2015

I. INTRODUCTION

In this Proposal for Decision, I recommend that the Vermont Public Service Board ("Board") approve, subject to conditions, the least-cost integrated resource plan filed by Green Mountain Power Corporation ("GMP") on December 1, 2014 (the "2014 IRP").

II. PROCEDURAL HISTORY

On December 1, 2014, GMP filed the 2014 IRP and requested that the Board approve it, pursuant to 30 V.S.A. § 218c.¹

On February 9, 2015, I held a public hearing via Vermont Interactive Technologies at locations in Bennington, Brattleboro, Lyndonville, Middlebury, Montpelier, Randolph Center, Rutland, Springfield, Saint Albans, White River Junction, and Williston, Vermont. No members of the public attended the public hearing. However, several members of the public submitted written comments regarding the 2014 IRP.

On March 11, 2015, GMP, the Vermont Department of Public Service ("Department"), and Vermont Energy Investment Corporation ("VEIC" and, collectively with GMP and the Department, the "Parties") jointly filed a memorandum of understanding among themselves (the "MOU"), in which they recommend that the Board approve the 2014 IRP subject to conditions.²

On April 21, 2015, the Deputy Clerk of the Board issued a memorandum requesting additional information from GMP related to the 2014 IRP.

1. I hereby admit the 2014 IRP into evidence as exhibit GMP-1.

2. I hereby admit the MOU into evidence as exhibit Joint-1.

On May 8, 2015, GMP filed its responses to the questions posed in the April 21 memorandum ("GMP Responses").

No parties filed comments on the GMP Responses.

III. FINDINGS

The 2014 IRP

1. The 2014 IRP includes background information on GMP and an analysis of regional trends in the electric industry. Exh. GMP-1 at 1-3 through 1-10 and 6-1 through 6-41.
2. The 2014 IRP includes a 20-year forecast of GMP's electricity sales and loads. Exh. GMP-1 at 2-11 and 2-12.
3. The load forecasts in the 2014 IRP were developed in consultation with Efficiency Vermont, the Vermont System Planning Committee, and the Vermont Electric Power Company, Inc. and Vermont Transco LLC, and account for energy efficiency measures, the deployment of additional net-metered generation, and possible load growth related to the use of air-source heat pumps and electric vehicles. Exh. GMP-1 at 2-3 through 2-7.
4. The 2014 IRP includes an analysis of GMP's existing power supply portfolio, as well as various supply options available to GMP to meet its forecasted loads, including distributed generation, demand response, and energy efficiency resources. Exh. GMP-1 at 3-1 through 3-29.
5. To analyze different approaches to meet its identified future power supply needs, GMP developed three hypothetical supply portfolios, as well as a reference case. Exh. GMP-1 at 7-6 through 7-8.
6. GMP also developed four renewable policy cases to analyze the potential impacts of a possible Vermont renewable portfolio requirement on each supply portfolio. Exh. GMP-1 at 7-9.
7. In developing the supply portfolios, GMP considered the external cost and financial risk of greenhouse gas emissions and analyzed the greenhouse gas emissions rate of each portfolio, as well as GMP's progress in meeting the state's renewable energy goals. Exh. GMP-1 at 7-2, 7-17, and 7-25.
8. Following the analysis of the initial supply portfolios, GMP developed an illustrative preferred portfolio that GMP believes best meets its planning objectives of developing a portfolio

that is low-cost, low-carbon, reliable, and diverse and maintains an appropriate balance between flexibility and stability. Exh. GMP-1 at 7-10 through 7-12.

9. The 2014 IRP also contains an analysis of GMP's transmission and distribution ("T&D") system, including an analysis of its current state, expected upgrades required during the planning period, and a description of its planning process for maintaining the T&D system. Exh. GMP-1 at 4-1 through 4-53.

10. The 2014 IRP includes information related to GMP's management plans for vegetation, weather events and flooding, underground damage prevention, and outage management, along with other information related to GMP's reliability efforts. These include initiatives associated with the deployment of GMP's advanced metering systems, including an overview of its pilot projects intended to capitalize on that deployment. Exh. GMP-1 at 4-53 through 4-67.

11. The 2014 IRP includes an action plan for implementing the conclusions identified through the IRP analysis. Exh. GMP-1 at 8-1 and 8-2.

12. As required by the Board's Order closing Docket 7836,³ the 2014 IRP includes planning updates related to the reconfiguration of the Danby and North transmission lines previously operated by the Vermont Marble Power Division of OMYA. Exh. GMP-1 at 4-43, 4-44, and 4-51 through 4-52.

13. The 2014 IRP also incorporates the methodological improvements required to be included in this IRP by the Board's Order approving GMP's prior IRP in Docket 7748. Exh. Joint-1 at ¶ 9.

14. Under the MOU, the Parties have agreed to increase their collaboration in the development of the following IRP, including the incorporation of common assumptions and scenarios from the Demand Resource Plan and other relevant reports and proceedings, as well as the quantification of common assumptions and scenarios for GMP's innovation pilots. Exh. Joint-1 at ¶ 14.

3. Docket 7836 concerned the IRP filing of Central Vermont Public Service Corporation ("CVPS"). On June 15, 2012, the Board issued an Order in Docket 7770 approving a number of corporate transactions, some involving CVPS. Among those transactions was the merger of CVPS and GMP, with GMP remaining as the surviving entity, which has since been completed. Accordingly, on August 19, 2014, the Board issued an Order closing CVPS's then-pending IRP proceeding and directing GMP to address certain issues from that proceeding when GMP filed its next IRP.

15. In the MOU, GMP has agreed to incorporate the following methodological improvements related to Distributed Energy Resources ("DER") in its next IRP:

- i. GMP will consult with the Parties to identify opportunities where DER can be quantified and integrated into the IRP, with emphasis on responsive demand resources and GMP's innovation pilots and programs.
- ii. GMP will consult with the parties to ensure, consistent with statutory and regulatory requirements, the least-cost development and deployment of DER. To this end, and for its next IRP, GMP will complete and report on its efforts to make web-based, location-specific technical grid information available to DER developers in advance of their decisions on the location, size, and electrical details of a project.
- iii. Innovative Pilots: To the extent that its innovation pilots are expected to reach a scale where they meaningfully impact the load or operation of the grid, GMP will integrate the expected volume and cost of its innovation pilots into the IRP.

Exh. Joint-1 at ¶ 14.

16. In the MOU, GMP also has agreed to incorporate the following improvements in its next IRP:

c. Integration

- i. GMP will continue to coordinate the efforts and the exchange of information within the decision-making framework as outlined in the IRP. This will require a continuous dialog among several company sub-organizations including Power Supply, T&D planning, Engineering, Rates/Finance, and Innovation. This combined organization will coordinate efforts with respect to DER implementation strategies in order to continue to provide our customers with reliable, environmentally responsible electric service at the lowest possible cost.
- ii. Common Metrics: GMP will collaborate with the Parties to find common metrics that could be used in existing and future energy planning processes such as the IRP and DRP.
- iii. Financial Outputs: GMP will estimate the expected revenue requirement impacts of the expected/preferred outcomes by year using the same tools, methods, metrics, and report formats that are employed in developing its annual cost of service filings. GMP will assess the revenue requirement impacts and explain how the trends that are driving them impact its annual cost of service filings.

d. Load Forecast

- i. GMP will continue to collaborate with Vermont Electric Power Company, Inc., and Vermont Transco LLC (collectively, "VELCO"), the Vermont System Planning Committee ("VSPC"), and VEIC to adopt as many common

- assumptions as possible into its subsequent IRP load forecasts, including the major elements of the DRP and the expected penetration of DER.
- ii. GMP will depict the IRP load forecast before and after the incorporation of energy efficiency, as defined by the most recent DRP.
 - iii. In consultation with the Parties, GMP will consider using heating and cooling degree-day *trends* instead of flat multi-year averages.
 - iv. GMP will consider and quantify the magnitude and timing of DER on GMP's peak and total energy requirements.

Exh. Joint-1 at ¶ 14.

17. GMP has also agreed to take steps to provide better customer notice of its next IRP, including creating a page on its website with the IRP and providing newspaper notice or bill stuffers to customers. Exh. Joint-1 at ¶ 13.

IV. DISCUSSION

30 V.S.A. § 218c sets out the statutory standards that the 2014 IRP must meet. Section 218c describes a "least cost integrated plan" as

a plan for meeting the public's need for energy services, after safety concerns are addressed, at the lowest possible present value life cycle cost, including environmental and economic costs, through a strategy combining investments and expenditures on energy supply, transmission and distribution efficiency, and comprehensive energy efficiency programs.⁴

In addition, Section 218c provides that, in developing a least-cost plan

[e]conomic costs shall be determined with due regard to:

- (A) the greenhouse gas inventory developed under the provisions of 10 V.S.A. § 582;
- (B) the state's progress in meeting its greenhouse gas reduction goals;
- (C) the value of the financial risks associated with greenhouse gas emissions from various power sources; and
- (D) consistency with section 8001 (renewable energy goals) of this title.⁵

The statute provides that the Board may approve a company's least-cost plan if it complies with the requirements of Section 218c. In reviewing the 2014 IRP and the MOU, I conclude that they

4. 30 V.S.A. § 218c(a)(1).

5. 30 V.S.A. § 218c(a)(2).

meet the statutory standards outlined in 30 V.S.A. § 218c and will promote the general good of the state. Accordingly, I recommend that the 2014 IRP and MOU be approved.

Although the statute establishes a standard for the review of IRPs, it does not specify what Board approval of an IRP means. Consistent with previous Board decisions⁶ and as stipulated by the parties in this proceeding,⁷ I recommend that the Board determine that approval of the 2014 IRP will extend to the decision-making processes included in the IRP, but not to the specific decision-making tools, analytical methods, or outcomes described in the IRP.

In the MOU, GMP, VEIC, and the Department have agreed to additional conditions that they recommend be included in the Board's order approving the 2014 IRP. These conditions relate to improving public access to GMP's next IRP, including publishing the IRP on GMP's website and providing customer notice by means of either bill stuffers or newspaper notice. I recommend that the Board adopt these conditions.

The parties have also agreed to make several improvements in GMP's next IRP. These include greater collaboration, additional efforts to quantify and integrate plans for the least-cost deployment of distributed energy resources, the development of improved metrics, including financial impacts related to outcomes modeled in the IRP, and refinements to GMP's load forecasting methodology. I recommend that the Board include these requirements as conditions of its approval of the 2014 IRP based on the agreement of the parties and because these measures will improve the manner in which future IRPs meet the statutory goals of 30 V.S.A. § 218c.

The MOU does not address the filing date of GMP's next IRP. Historically, the Board has required utilities to file IRPs every three years. As the Revised IRP was filed on December 1, 2014, I recommend that the Board require that GMP file its next IRP on or before December 1, 2017.

6. Docket 7319, Order of 3/6/08 at 6; Docket 6895, Order of 7/13/06 at 8.

7. Exh. Joint-1 at ¶ 11.

V. CONCLUSION

In this Proposal for Decision, I recommend that the Board approve the 2014 IRP filed by GMP on December 1, 2014, along with the MOU among GMP, VEIC, and the Department filed on March 11, 2015.

In the MOU, the parties waived their rights to file comments on a proposal for decision in this proceeding if it was consistent in all material respects with the MOU.⁸ Because I am recommending that the Board approve the MOU in the entirety, I have not circulated this Proposal for Decision to the parties for their review or comment pursuant to 3 V.S.A. § 811.

Dated at Montpelier, Vermont, this 29th day of July, 2015.

s/Kevin C. Fink

Kevin C. Fink
Hearing Officer

8. Exh. Joint-1 at ¶ 23.

VI. ORDER

IT IS HEREBY ORDERED, ADJUDGED, AND DECREED by the Public Service Board of the State of Vermont that:

1. The findings and conclusions of the Hearing Officer are adopted.
2. The Integrated Resource Plan ("IRP") filed by Green Mountain Power Corporation ("GMP") on December 1, 2014, is approved.
3. The Memorandum of Understanding among GMP, the Vermont Energy Investment Corporation, and the Vermont Department of Public Service filed on March 11, 2015, and attached hereto, is adopted.
4. GMP's next IRP shall incorporate the methodological improvements described in Findings 15 and 16 of the proposal for decision.
5. Upon filing its next IRP with the Board, GMP shall post the new proposed IRP on its website and provide additional customer notice of its proposed IRP through a bill stuffer or press release.
6. GMP's next IRP shall be filed by December 1, 2017.
7. This docket shall be closed.

Dated at Montpelier, Vermont, this 29th day of July, 2015.

<u>s/James Volz</u>)	
)	PUBLIC SERVICE
)	
<u>s/Margaret Cheney</u>)	BOARD
)	
)	OF VERMONT
<u>s/Sarah Hofmann</u>)	

OFFICE OF THE CLERK

FILED: July 29, 2015

ATTEST: s/Susan M. Hudson
Clerk of the Board

NOTICE TO READERS: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: psb.clerk@vermont.gov)

Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Board within thirty days. Appeal will not stay the effect of this Order, absent further order by this Board or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Board within ten days of the date of this decision and Order.